TCEP

Tobacco Control Enhancement Project

Tobacco and Health Disparities: Overview and Scientific Evidence

IN BRIEF...

Health disparities in racial and ethnic groups in the U.S. are strongly associated with variations in tobacco use and accessibility as well as the quality of health care.

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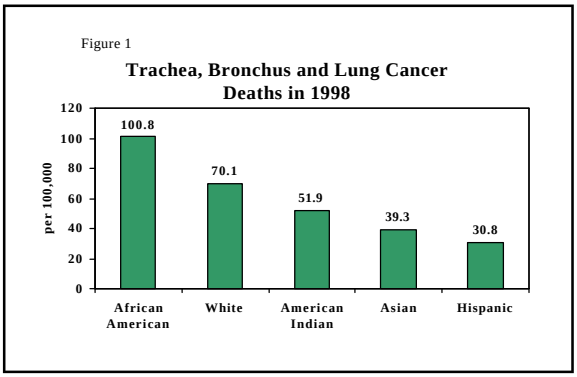
Funded by

The Tobacco Control Program, Rhode Island Department of Health, under a grant from the Centers for Disease Control and Prevention

Each year minorities in this country experience at least 60,000 excess deaths (deaths beyond what would be expected if they had the same sex and age-adjusted rates as the white population).[1] Differences across groups can range up to 10 or more years in life expectancy or 20 or more years of limitations on healthy normal functioning.[2] There is an increasing body of scientific evidence indicating that health disparities among racial/ethnic groups in the U.S. are strongly associated with variations in tobacco use as well as differences in the quality and accessibility of prevention and treatment. This paper will focus on (1) what is known about health disparities related to tobacco use, (2) what the differences are in smoking patterns that may contribute to health disparities, (3) other factors that help to account for health disparities, and (4) suggestions for smoking prevention and cessation efforts specific to diverse populations. These findings help in conceptualizing the problem of tobacco related health disparities and exploring how to proceed in addressing the problem.

It is important to note that the causes and cures of health disparities in the United States must be understood in the larger context of economic disparities and racism as well as variations in cultural practices and biological risk factors that are known to influence various epidemiological patterns. Analysis of this larger context has led to recommendations for a community change approach to reducing health disparities and for recognition of existing strengths in minority communities when developing health policies.[3] A recent Institute of Medicine (2002) report concludes quite forcefully, "…differences in treating heart disease, cancer, and HIV infection partly contribute to higher death rates for minorities," making the health care context itself part of the larger societal picture.[4]

Figure 1



Health Disparities Related to Tobacco Use

Lung cancer is the leading cause of cancer deaths. The CDC reports that 87% of lung cancer deaths are attributable to smoking and that 30% of all cancers are smoking related. As Figure 1 shows, smoking related mortality from trachea, bronchus and lung cancer are highest for African Americans compared to Whites, American Indians, Asian Americans and Hispanics after age adjustment.

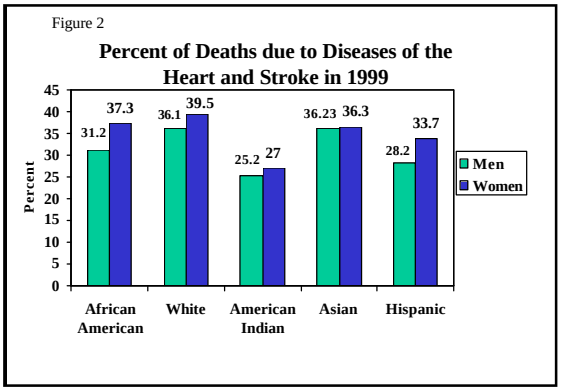
Cardiovascular disease (CVD) is the leading cause of illness and death among smokers. One in five deaths from CVD can be attributed to smoking and there is evidence that suggests secondhand smoke (SHS) is also related to CVD illness and death among nonsmokers (See the Secondhand Smoke briefing paper for more information). Figure 2 reports the age-adjusted percentages of deaths due to disease of the heart and stroke for 5 different racial/ethnic groups. Women are at higher risk than men in developing CVD, and the mortality rate for Asian men is the highest among men, while White women have the highest rate among women, followed by African-American women.[5] When racial/ethnic groups' overall rates of illness and death are observed, "African Americans currently bear the greatest health burden," as reported by the Surgeon General.[6]

Disparities in Smoking Prevalence and More Specific Patterns of Tobacco Use

Race and Ethnicity

One source of health disparities related to tobacco is the variation in patterns of smoking (both prevalence of use and more specific variations of use) by the different racial/ethnic groups. Smoking patterns place various age/gender/ethnic groups at differing risk

Figure 2



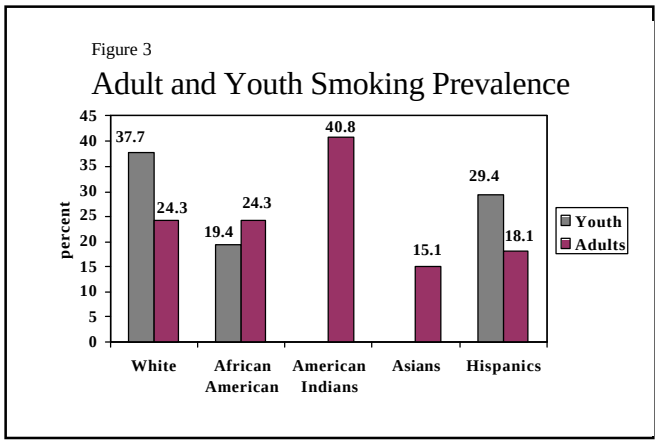
for developing diseases.[2]

According to the 1998 Surgeon General Report, smoking prevalence among African American, Asian American and Pacific Islander, and Hispanic men declined from 1978 to 1995, although prevalence rates among women did not. Data collected in the 1999 National Health Interview Survey revealed that Native Americans/ Alaska Natives have by far the highest rates of adult smoking prevalence (40.8%) followed by African Americans (24.3%), White (24.3%) and Hispanic (18.1%). Many studies have reported low smoking prevalence rates for Asian Americans (15.1%) compared to other racial/ethnic groups.[7] These reports perpetuate the image of the "model minority" when in fact Asian Americans residing in ethnic enclaves often have higher smoking prevalence rates due to complex factors relating to cultural norms and practices prior to immigrating to the United States. In a study in Chicago's Chinatown the smoking prevalence rate was 33.6 percent for males ages 45-64. For this reason ethnic enclaves need even more attention and consideration as smoking prevalence rates often differ significantly from the general population.[8]

Age

Youth smoking increased sharply in the early 1990s followed by a decline beginning in 1996. From 1996 to 2001, the prevalence rates among 8th and 10th graders decreased from 14.6 to 12.2 percent and 23.9 to 21.3 percent, respectively.[9] Data collected from high school students in 2001 indicate that prevalence rates over the past 30 days for Whites were 37.7 percent followed by Hispanics (29.4%) and Blacks (19.4%).[10] While prevalence rates for Native Americans are not well documented, data collected from 1985 to 1989 indicate that among Native American seniors in high school, 41 percent of the males and 39 percent of the females smoked during the past 30 days. The rates

Figure 3

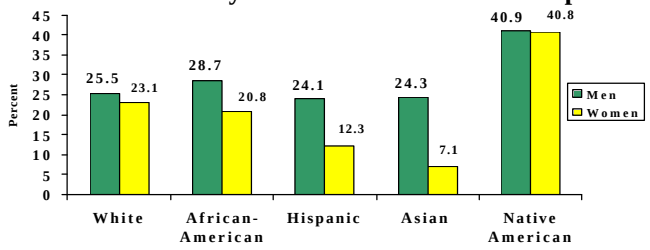


for Asian males and females were 17 and 14 percent, respectively.[11] In terms of uptake, African American youth are one-third as likely to progress from experimentation to uptake when compared to White youth.[12] Despite the low prevalence rates among African American youth, as adults they have similar prevalence rates to Whites possibly due to higher initiation rates among Blacks during the early adult years coupled with greater cessation rates among Whites.[13]

Gender

While women have smoked at lower rates than men, the decline in prevalence rates between women and men are comparable. Although, gender specific differences have not been consistently identified, "Among women, biopsychosocial factors such as pregnancy, fear of weight gain, depression and the need for social support appear to be associated with smoking maintenance, cessation or relapse."[14] Data collected from adults by the National Health Interview Survey in

Figure 4



1999 displayed in Figure 4 indicate that gender differences in prevalence rates are more pronounced for African-Americans, Hispanics, and Asian Americans than for Whites.[9] The relatively low prevalence rates reported by Asian American and Hispanic women should be viewed as a strength that can be used to design tobacco control interventions.

Education

One common finding among all ethnic groups is the association of education with changes in smoking prevalence rates. That is, those who attain at least a high school education, regardless of race/ethnicity, have a more rapid decline in prevalence compared to those who have less education. According to the 1998 Surgeon General Report, smoking prevalence rates (comparing 1978-1980 to 1994-1995 rates) among African American college graduate students decreased from 34.6 to 16.7 percent, while African Americans with less than a high school education decreased from 36.4 to 34.8 percent.

Acculturation

Level of acculturation also plays a key role in influencing smoking prevalence and patterns that racial/ethnic minorities develop. Among Asian Americans and Pacific Islanders, those residing in the United States for longer durations were least likely to smoke. Consistent with these findings, recent Asian immigrants lacking English-language proficiency were more likely to be smokers than the general population. Yet, among Mexican Americans, higher levels of acculturation are related to increases in smoking.[6] Level of acculturation also appears to influence Hispanic women's perceptions of female smokers and overweight women. Less acculturated women think that being overweight is better than being a smoker while more acculturated women think that it is better to be a smoker than overweight.[15] This type of culture specific information combined with knowledge of the impact acculturation has can be useful in tailoring interventions to specific populations.

Patterns of Use

Also reported in the 1998 Surgeon General Report are more specific kinds of smoking preferences leading to differential risks among minority groups. For example, significantly more African Americans (75%) than Whites (25%) prefer mentholated cigarettes, which are generally higher in nicotine. Furthermore, more American Indians and Alaska Natives report being light smokers (15 or less cigarettes per day) than Whites (49.9% as compared to 35.3%). Light smoking may not lead to efforts to cut down or quit due to a false perception that they are not at risk; yet these levels of use substantially increase risks for tobacco related diseases.

Other Factors that Contribute to Health Disparities

Disparities in Workplace Exposure

Previous research has suggested that blue-collar workers report smoking more, are exposed to higher levels of secondhand smoke, and "report a lower prevalence of restrictive smoking policies in worksites where they are employed, compared to the reports of other

[White-collar] workers."[16] These findings are especially salient in terms of racial/ethnic differences in health disparities since there are higher proportions of racial/ethnic minorities than Whites in blue-collar jobs. Further, low SES is also associated with exposure to other workplace air pollution that can further compound the effects of tobacco smoke.[16]

Inequities in Treatment and Prevention Services

Inequity in health care and its effects on preventive intervention and medical treatment found among different socio-economic groups has been shown to affect morbidity and mortality rates. Racial/ethnic minorities are over-represented in low-income groups. People with low incomes are significantly less likely to have health insurance, affecting minorities disproportionately not only in access to services but also in morbidity and mortality rates.[17] Thus, limited access and lower quality of treatment and prevention when racial/ethnic minorities receive services are widely cited as reasons for disparities in health outcomes. Many people of low SES rely on Medicaid insurance for their health care, including smoking cessation services. Sadly, "Medicaid programs have not kept pace with the growing evidence base for tobacco-dependence treatments, and most are failing to cover services that are effective in a population that most needs them."[18] Clearly those with lower SES are at a great disadvantage given the current practices in treatment for Medicaid dependent individuals.[19] Tragically, the Wisconsin Medical Journal reported that among the Medicaid population in Wisconsin the smoking prevalence was almost double that of the general population.[20]

Beyond economic factors, discriminatory treatment provided to minorities based on their race/ethnicity is also now a recognized source of differential health outcomes. Economic factors and discriminatory treatment are not always easy to disentangle, but a recent IOM report clearly states that there is evidence for "bias, prejudice, and stereotyping on the part of health care providers" as a source of differences in care beyond the role of economic disadvantages.[21] Another supporting conclusion is that internal medicine resident physicians counseled their patients inconsistently against smoking and that African Americans were less likely to be counseled against smoking.[21] Language and cultural differences also affect the accessibility and effectiveness of both prevention and treatment.

Beyond the issues associated with disparities in services, the paucity of pharmaceutical advertising in minority versus white-oriented magazines as well as the lack of culture-specific pro-health advertising in general may have an effect on the awareness of specific populations about health related issues. [22]

Targeted Advertising

Finally, the tobacco industry has strategically targeted racial/ethnic groups to increase tobacco buyers, and also to gain credibility among minority group members. Advertisements are designed to appeal to non-White audiences and distributed in relevant locations and media outlets. Tobacco industry efforts to gain acceptance and support from African Americans and other racial/ethnic minorities include(1) direct employment, (2) financial support for social services and civil rights organizations, (3) contributions to politicians and political organizations, (4) support for educational and cultural programs, and (5) contracts with small businesses. [6]

Addressing Health Disparities

Addressing Inequities in Treatment Services

General recommendations for improving the impact of prevention and cessation interventions for minority communities include strengthening access, appropriateness, and quality of of cessation methods that have been demonstrated to be particularly effective among minority group members. Furthermore, interventions (media campaigns, education programs, cessation programs) should be tailored to the specific smoking patterns mentioned above and to the cultural practices of the targeted population. Specifically, components of best practices for cessation programs indicate that programs should strive to (1) be culturally appropriate, (2) provide information of the effects of tobacco use on their health, and (3) have the resources to help people quit and provide very specific techniques for quitting.[17] While the importance of health insurance cannot be over-stated, access to health care and cessation programs may be increased by providing free or reduced-fee services and transportation as well as increasing visibility in relevant local media.

Tailoring Interventions For Prevention and Cessation

Some researchers report that anti-tobacco efforts have been unsuccessful in addressing smoking among disadvantaged groups. Researchers also say that "health promotion initiatives designed to reduce smoking among members of these groups will continue to fail unless the general health and life chances of such individuals are first improved."[23] Despite these reports population-specific prevention services that are specifically tailored to racial/ethnic minorities have been developed and can help to overcome disparities. Although much work remains to be done in this area, several programs are described below. Some well-researched interventions work for a wide range of minority populations such as the Life Skills Training Program, which is a prevention curriculum delivered in middle schools. Although it was originally not culture-specific, it was later modified for use among diverse populations and produced a 56% reduction of current tobacco use in a multicultural sample. While it is not clear which media types are most utilized by different racial/ethnic groups, a study in Chicago concluded that African Americans perceived books and pamphlets to be the most credible sources of information while Asian Americans and Hispanics found credible sources to be talks in their children's schools, television and radio commercials in that order.[6] Accurate and accessible (linguistically and culturally) information about tobacco and health would have to be disseminated in order to increase awareness, change norms, and increase motivation for changes in policies and personal behavior.

Latinos: A study conducted with the Latino community in the San Francisco area used various educational materials in Spanish that incorporated: (1) culturally-specific beliefs and values, (2) group-specific attitudes, norms, and expectancies, and (3) appropriate intervention channels and sources. For example, materials reflected important values to the Latino community such as *familismo*, which is the belief that immediate and extended family has primary importance. They reported a decline in smoking prevalence among Latinos in San Francisco for most of the 7 years that the study was conducted.[24] *Personalismo* and *simpatía* are values among Latinos that encourage positive social interaction and as a result it may be difficult for Latinos in smoking social groups to refuse to smoke."[25] Another study of Latino youth reported that availability, peer pressure, modeling, expectancies and parent-child communication were predictors of tobacco use among Latino youth.[26] The results of the study confirmed that parent-child communication was a protective factor, which may translate to a five to ten percent reduction in tobacco use among families.[27] Shout (Students Helping Others Understand Tobacco) was a three year project that focused on youth education and refusal skills. Results indicated that smoking prevalence during the past week was significantly lower for Hispanics compared to students that did not participate in the program.[6]

Native Americans: Family messages delivered by parents as well as grandparents are a very important part of the Native American culture. A study on Native American teens found that many grandparents delivered anti-smoking messages to their grandchildren, supporting "the premise that family-based prevention programs for American-

Indian teens should target the extended family."[28] An intervention study for Native Americans in elementary school had two experimental approaches to prevention and a control group; both intervention groups learned cognitive and behavioral skills for substance abuse prevention and one of them also involved community residents in their prevention efforts. There were no effects on cigarette smoking, although smokeless tobacco, alcohol and marijuana use was lower among the youth that received the interventions.[29]

African Americans: A study that compared smoking among African American youth found that teens accessing cessation services were significantly older (81% were in the 15 to 19 age range) than their non-African American counterparts. This finding is of note because this means that the strategies that may appeal to African American youth may be different than what may appeal to a non-African American youth because African American youth smokers tend to be older. The program Pathways to Freedom: Winning The Fight Against Tobacco is a manual developed for African Americans with an emphasis on quitting and mobilization.[6] Some researchers say that studies suffer from a lack of participation of African Americans. A potential reason for African Americans' low participation in research studies of prevention or cessation methods may be due to "the infamous Tuskegee syphilis study because its effects have impacted African American community views about research and health care."[30] Researchers need to be sensitive to such effects as they may still affect some African Americans.[30]

Asian Americans: In China, using cigarettes as a social exchange is a common act demonstrated by foreign visitors who are "expected to give cartons of cigarettes to their hosts" as a sign of appreciation. The history of tobacco in Asian countries is significant and it has influenced the views and use of tobacco among Asians in the U.S., as 63% of Asians in the U.S. in 1993 were immigrants and their cultural views of tobacco often remain with them in the United States. There is a paucity of information and research about Asians and tobacco use or education and cessation programs, thus empirically based approaches that work with Asians are not available. Despite the general lack of information, it is known "that factors associated both with the respective native cultures and with acculturation are important."[6] A manual entitled How to Quit Smoking was developed for Vietnamese Americans with an emphasis on education and different tips for quitting.[6]

Conclusion

Despite the aforementioned efforts, information on population specific interventions is still limited. The research literature itself reflects the disparity in priorities accorded to minority health issues. Health disparities in major tobacco related diseases (e.g., lung cancer, heart disease) do exist and have recently received increasing attention. Smoking prevalence rates and particular use patterns vary by race/ethnicity, age, and gender in ways that are relevant for understanding both disease risks and approaches to prevention and treatment. Exposure to secondhand smoke varies in ways that put minority populations at higher risk. These populations are also put at greater risk by factors such as inadequate health insurance, culturally inappropriate prevention and cessation programs, racism in the health care delivery system, and targeted pro-tobacco advertising. In some cases there are now science-based programs developed for minority populations. It is also essential to use local knowledge and strengths, combined with research-based distillations of "best-practices" to develop new culturally appropriate interventions. The issues of access to and quality of prevention and cessation services must also be addressed at the policy level. In addition, if the general living conditions of minority populations improve, health outcomes are expected to improve as well.

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